MULTIMEDIA UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

# FINAL EXAMINATION

**TRIMESTER 3, 2015/2016**

## PAT0075 – COST AND MANAGEMENT ACCOUNTING

(Foundation in Management)

1 JUNE 2016
2.30 p.m. – 4.30 p.m.
(2 Hours)

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**INSTRUCTIONS TO STUDENT**

1. This question paper consists of **SIX** pages with **FIVE** questions only.
2. Answer **ALL** questions.
3. Write your answers in the Answer Booklet.

## STRUCTURED QUESTIONS [100 MARKS]

**Instructions:** Answer **ALL** questions. Write your answers in the Answer Booklet.

## QUESTION 1

Tasio Company produces two types of financial calculator, ABX01 and ABX02. The traditional costing system allocates manufacturing overheads on the basis of machine hours for both products. Data related to the two products are presented below:

| | ABX01 | ABX02 |
|---|---|---|
| Annual production in units | 10,000 | 15,000 |
| Direct material costs | RM120,000 | RM240,000 |
| Direct manufacturing labor costs | RM50,000 | RM80,000 |
| Direct manufacturing labor hours | 10,000 hours | 11,000 hours |
| Machine hours | 25,000 hours | 50,000 hours |
| Number of production runs | 25 runs | 25 runs |
| Inspection hours | 500 hours | 250 hours |

Total manufacturing overhead costs are given as follows:

| Activity | Cost driver | Activity cost (RM) |
|---|---|---|
| Machining | Machine hours | 275,000 |
| Set-up | Number of production runs | 110,000 |
| Inspection | Inspection hours | 100,000 |
| Assembly | Direct manufacturing labor hours | 100,000 |

Recently, the owners of Tasio Company have heard about other companies in the industry that are now using an activity-based costing system.

### REQUIRED

a) Calculate the cost driver rate for each product using activity-based costing system. (4 marks)

b) Calculate the total manufacturing overhead cost for each product using activity based costing system. (6 marks)

c) Compute the manufacturing cost per unit for each product. (7 marks)

d) Briefly explain ONE(1) of the comparisons between traditional and activity-based costing system. (3 marks)

**(TOTAL 20 MARKS)**

**Continued...**

## QUESTION 2

### Part A

The following information is provided by Yufuin Corporation:

| | |
|---|---|
| Work in progress Inventory units, 1 January | 0 |
| Units started | 14,000 |
| Units completed and transferred out | 9,000 |
| WIP inventory units, 31 December | 5,000 |
| Direct materials | RM25,500 |
| Direct labour | RM28,000 |
| Manufacturing overhead | RM6,500 |

The units in ending work in progress inventory were 75% complete for direct materials and 50% complete for conversion costs.

**REQUIRED**

a) Calculate the equivalent units of closing work in progress inventory for direct materials and conversion costs. (2 marks)

b) Calculate the total equivalent units for direct materials and conversion costs. (2 marks)

c) Calculate the cost per equivalent unit for direct materials, conversion costs, and total cost per equivalent unit. (2.5 marks)

d) Calculate the cost of closing work in progress inventory. (2.5 marks)

e) Calculate the cost of completed units. (1 mark)

### Part B

Toyama Company produces jump ropes. Toyama Company has the following sales projections for the upcoming year 2017:

| | |
|---|---|
| First quarter budgeted jump rope sales in units | 21,000 |
| Second quarter budgeted jump rope sales in units | 35,000 |
| Third quarter budgeted jump rope sales in units | 22,000 |
| Fourth quarter budgeted jump rope sales in units | 30,000 |

Toyama Company wants to have 20% of the next quarter's sales in units on hand at the end of each quarter. Inventory at the end of 2017 is estimated to be 4,200 jump ropes.

**REQUIRED**

Prepare the production budget for the upcoming year 2017. (10 marks)

**(TOTAL 20 MARKS)**

**Continued...**

## QUESTION 3

Treasured Vase Sdn Bhd produces and sells decorated vase. In 2015, the company had produced and sold 6000 units. The following is the information about the company's operation for the year 2015.

| | Total (RM) |
|---|---|
| Sales | 360,000 |
| Variable Costs | 270,000 |
| Contribution Margin | 90,000 |
| Fixed Costs | 48,000 |
| Net income | 42,000 |

## REQUIRED

a) Based on the information provided, compute the:

i. per unit figures of each item listed above. (7 marks)

ii. breakeven point units for 2015. (3 marks)

iii. margin of safety units for 2015. (3 marks)

iv. compute the contribution margin ratio for 2015. (2 marks)

b) Compute the sales units required to achieve the net income of RM49,500. (2 marks)

c) Determine the sales unit required to achieve the net income of RM60,000 if the fixed cost is increased by 25%. (3 marks)

**(TOTAL 20 MARKS)**

**Continued...**

## QUESTION 4

Bentara Sdn. Bhd. manufactures a small component that is widely used in various electronic products. Below are the operating results for the first quarter of Bentara Sdn. Bhd.

Statement of Profit and Loss and Other Comprehensive Income
For the first Quarter Ended 31 March 2016

| | RM | RM |
|---|---|---|
| Sales (42,000 units) | | 2,520,000 |
| Less Variable costs: | | |
| Variable manufacturing cost | 1,039,500 | |
| Variable selling and administrative | 378,000 | (1,417,500) |
| Contribution margin | | 1,102,500 |
| Less Fixed costs: | | |
| Fixed manufacturing overhead | 450,000 | |
| Fixed selling and administrative | 300,000 | (750,000) |
| Net income | | 352,500 |

Production and cost data relating to the electronic products for the first quarter are as follows:

| | |
|---|---|
| Units produced | 45,000 |
| Units sold | 42,000 |
| Variable costs per unit: | RM |
| Direct materials | 5.25 |
| Direct labour | 18.00 |
| Variable manufacturing overhead | 1.50 |
| Variable selling and administrative | 9.00 |

**REQUIRED**

a) Calculate the unit product cost under absorption costing. (5 marks)

b) Prepare Statement of Profit or Loss and Other Comprehensive Income for the **first quarter of 2016** using absorption costing. (7 marks)

c) During the second quarter of operations, the company produced 45,000 units and sold 48,000 units. Assuming that there is no change in total fixed costs, prepare the Statement of Profit or Loss and Other Comprehensive Income for the **second quarter of 2016** using marginal costing. (8 marks)

**(TOTAL 20 MARKS)**

**Continued...**

## QUESTION 5

### Part A

Forby Paint Production Company needs 2,000 units of paint containers for its production process. Forby can buy these containers from one of the market leading company Supermatel Incorporation for RM1,000 each. Forby can produce the containers internally based on the following cost per unit:

| | RM |
|---|---|
| Direct material | 620 |
| Direct labour | 220 |
| Variable manufacturing overhead | 200 |
| Fixed manufacturing overhead | 300 |
| Supervisor salary | 30 |

If Forby buys the containers from Supermatel company, 70% of the fixed manufacturing overhead cost is unavoidable and 100% of the supervisor's salary is avoidable.

**REQUIRED**

Using relevant cost approach, should Forby Paint make or buy the containers?

(10 marks)

### Part B

Renoti Restaurant is planning to have two different branches. Below is the market analysis for both projects:

| | Branch 1 | Branch 2 |
|---|---|---|
| Initial investment | RM200,000 | RM200,000 |
| Expected annual cash flows | RM100,000 | RM90,000 |
| Estimated life | 8 Years | 8 years |
| Estimated residual value | RM40,000 | 0 |

Straight line depreciation method is used and minimum required rate of return is 8%. The discount factor and discount factor annuity at 8% are as follows:

| Period | Present value of RM1 at 8% | Present value of ordinary annuity of RM1 at 8% |
|---|---|---|
| 1 | 0.926 | 0.926 |
| 2 | 0.857 | 1.783 |
| 3 | 0.794 | 2.577 |
| 4 | 0.735 | 3.312 |
| 5 | 0.681 | 3.993 |
| 6 | 0.630 | 4.623 |
| 7 | 0.583 | 5.206 |
| 8 | 0.540 | 5.747 |

**Continued...**

**REQUIRED**

a) Compute net present value (NPV) and accounting rate of return (ARR) for each project. (9 marks)

b) Which project will Renoti Restaurant choose? Why? (1 mark)

**(TOTAL 20 MARKS)**

**End of Paper**